SEALED OPTICS

Strontium Fluoride

Optical

Transmission Range :	150 nm to 11 µm
Refractive Index :	1.439 at 550 nm
Reflection Loss :	6.3 % at 550 nm (loses from two surfaces)
Absorption Coefficient :	<1 x 10^{-3} cm^{-1} at 5 µm

Physical

Density :	4.24 g/cm^3
Melting Point :	1450 °C
Thermal Conductivity :	8.3 W m^{-1} K^{-1} at RT
Linear CTE :	18.4 x 10^{-6} /°C at RT
Specific Heat Capacity :	543 J Kg^{-1} K^{-1}

Mechanical

Youngs Modulus (E) :	89.91 GPa
Shear Modulus (G) :	34.6 GPa
Bulk Modulus (K) :	24.65 GPa
Rupture Modulus :	36.5 Mpa
Hardness :	154 Knoop (100 g indentor)
Poisson Ratio :	0.25

Chemical

Chemical formula :	SrF_2
Solubility :	0.012 g/100g H_2O At RT
Molecular Weight :	125.62 g/ mole

Notes

Strontium Fluoride has optical properties between calcium flouride and barium fluoride.